REMARKS

This Amendment is in response to the Final Office Action mailed 08/19/2005. Applicant has filed a Request for Continued Examination to have the Office withdraw the finality of the Office Action and have this submission entered and considered. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Applicant respectfully requests that the Examiner take notice of the Supplemental Declaration and Power of Attorney filed 05/12/2003 which corrects the name of the first named inventor from "Honary Hooman" to --Hooman Honary--.

Detailed Action

2. The Examiner again notes that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. Applicant provided the previously requested line numbers in the Listing of Claims included with the previous Response and continues to provide them in this Response. For the edification of the Examiner applicant respectfully notes that the present application was filed using the Electronic Filing System (EFS). The format of applications filed with EFS is controlled by the USPTO and not by the applicant. Further, applicant understands the use of line numbers in both the specification and the claims to be an archaic practice that is no longer recommended by the USPTO.

Rejection Under 35 U.S.C. § 103

4. The Examiner rejects claims 1-2, 6-12, 14, 17-20, 23-26, and 29-30 under 35 U.S.C. 103(a) as being unpatentable over Miro (U.S. Patent 5,220,653) in view of Applicant Admitted Prior Art (AAPA), and further in view of Maeno (U.S. Patent 4,942,569).

6. As to claims 1, 11, 19 and 24, the Examiner asserts that Miro in combination with AAPA and Maeno teaches the invention substantially as claimed.

Applicant has amended claims 1, 11, 19 and 24 to provide that the task router is configured to monitor the first queue for an overflow condition and, if an overflow condition is detected, reassign data frame priority types from the first priority type to the second priority type to prevent overflow of the first queue. These are substantially the same elements that appeared in dependent claims 7, 17, and 29, which applicant has cancelled. With regard to claims 7, 17, and 29, the Examiner asserts that Maeno teaches the task router is configured to monitor the first queue for an overflow condition and, if an overflow condition is detected, reassign data frame priority types from the first priority type to the second priority type to prevent overflow of the first queue (col. 8, lines 21-30). Applicant respectfully disagrees. Maeno teaches a congestion control method that discards packets having the lowest priority if an overflow condition is detected (col. 8, lines 27-29). This is entirely unlike the claimed invention that reassigns a priority type to cause data frames to be placed in a different queue to prevent overflow of the queue that the data frame would otherwise be held in. Maeno teaches a single queue holding packets of differing priorities. Maeno cannot prevent overflow by causing packets to be held in a

different queue as claimed because Maeno does not teach the use of more than one queue. Thus Maeno must teach the discarding of packets to prevent overflow rather than the claimed reassigning.

11. As to claim 2, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

12. As to claim 6, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

13. As to claims 7, 17 and 29, applicant has cancelled these claims and added substantially the same elements to independent claims 1, 11, 19 and 24, which are discussed above.

14. As to claim 8, applicant has amended the claim to provide that the switch is configured to retrieve task identifiers from both the first and second queues in a task retrieval cycle in which at least one task identifier is retrieved from each of the first and second queues such that space in the third queue is allotted equally according to processing time restrictions as disclosed in paragraph [0035] of the specification as filed. Applicant respectfully submits that this distinguishes the claimed invention from Miro and Maeno which do not teach retrieving tasks from all queues in a single cycle and do not teach allocating space in a third queue according to processing time restrictions.

As to claim 9, applicant has amended the claim to provide that the switch is configured to retrieve task identifiers with the first priority type until a cumulative processing time requirement for the retrieved task identifiers with the first priority type is substantially equal to a processing time requirement for the task identifiers with the second priority type, and then to retrieve a task identifier with the second priority type as disclosed in paragraph [0038] of the specification as filed. Applicant respectfully submits that this distinguishes the claimed invention from Miro and Maeno which do not teach retrieving a task of a lower priority when the processing time for the lower priority task substantially equals the processing time for a group of higher priority tasks that have been retrieved.

15. As to claim 10, the Examiner asserts that Miro teaches the third queue is a shared execution queue from which one or more processing units retrieve task identifiers to process (col. 1, lines 42-45). Applicant respectfully disagrees. Applicant understands the cited portion of Miro to disclose a set of priority ordered request holding queues for each physical disk drive in a processing system. Thus only one processing unit retrieves task identifiers to process from the service queue. One of ordinary skill in the art would understand that requests for a disk drive must be associated with only that disk drive as it is not possible to service requests directed to a disk drive by any other disk drive.

16. As to claims 12, 20, and 25, applicant has amended the claims to provide that the task priority level is determined from one of frame size, echo canceller tail length, codec type, and frame processing requirements as disclosed in paragraph [0024] of the specification as filed.

Applicant respectfully submits that this distinguishes the claimed invention from Miro which does not teach the use of any of the claimed characteristics to determine a task priority level. The portion of Miro cited by the Examiner (col. 4, lines 50-66) to reject the claim prior to amendment discloses determining a task priority level based on an I/O tasks association with a foreground or background task which is distinctly different from the characteristics recited in the amended claims.

As to claim 14, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

17. As to claims 18, 23 and 30, applicant relies on the patentability of the claims from which these claims depend to traverse the rejection without prejudice to any further basis for patentability of these claims based on the additional elements recited.

18. As to claim 26, applicant relies on the patentability of the claims from which this claim depends to traverse the rejection without prejudice to any further basis for patentability of this claim based on the additional elements recited.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-2, 6-12, 14, 17-20, 23-26, and 29-30 under 35 U.S.C. 103(a) as being unpatentable over Miro (U.S. Patent 5,220,653) in view of Applicant Admitted Prior Art (AAPA), and further in view of Maeno (U.S. Patent 4,942,569).

19. The Examiner rejects claims 3-5 and 13 under 35 U.S.C. 103(a) as being unpatentable over Miro (U.S. Patent 5,220,653) in view of Applicant Admitted Prior Art (AAPA), as applied to claims 1, 11, 19 and 24 above, and further in view of Maeno (U.S. Patent 4,942,569) and Sherrod (U.S. Patent 4,642,756).

21. As to claim 3, the Examiner admits that Miro does not explicitly teach a look-up table store communicatively coupled to the port, the look-up table store to store conversions between priority types and data frame types. However, the Examiner asserts that Sherrod teaches look-up table store communicatively coupled to the port, the look-up table store to store conversions between priority types and data frame types (col. 3, lines 7-12 and lines 23-28; col. 4, line 8, to col. 5, line 18). Applicant respectfully submits that nothing in Sherrod teaches or suggests providing a priority type according to a data stream in which a data frame was included, a portion of the claim that the Examiner has not addressed. Applicant is unable to find any part of Sherrod that discusses data streams or data frames for any purpose.

23. As to claims 4 and 13, the Examiner asserts that Sherrod teaches one of the first priority type and the second priority type is pre-assigned to the data stream (col. 3, lines 7-12). Applicant respectfully disagrees. The cited portion of Sherrod teaches priorities designated by a computer operator and internally computed priorities. Neither of these discloses priorities that are pre-assigned to the data stream.

24. As to claim 5, applicant has amended the claims to provide that the conversions between priority types and data frame types are dynamically as disclosed in paragraph [0025] of the specification as filed. Applicant respectfully submits that this distinguishes the claimed invention from Sherrod. The portion of Sherrod cited by the Examiner (col. 3, lines 23-28) to reject the claim prior to amendment discloses adjusting task priorities based on utilization of peripheral devices which is distinctly different from adjusting task priorities based on usage of the queues.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 3-5 and 13 under 35 U.S.C. 103(a) as being unpatentable over Miro (U.S. Patent 5,220,653) in view of Applicant Admitted Prior Art (AAPA), as applied to claims 1, 11, 19 and 24 above, and further in view of Maeno (U.S. Patent 4,942,569) and Sherrod (U.S. Patent 4,642,756).

25. The Examiner rejects claims 15-16, 21-22, and 27-28 under 35 U.S.C. 103(a) as being unpatentable over Miro (U.S. Patent 5,220,653) in view of Applicant Admitted Prior Art (AAPA), as applied to claims 1, 11, 19 and 24 above, and further in view of Maeno (U.S. Patent 4,942,569) and Beaulieu et al. (U.S. Patent 6,182,120).

26. As to claims 15, 21 and 27, applicant has amended the claims to provide that each data frame type corresponds to a particular processing time requirement for data frames of the data frame type as disclosed in paragraph [0033] of the specification as filed. Applicant respectfully submits that this distinguishes the claimed invention from Beaulieu. The portion of Beaulieu cited by the Examiner (col. 1, lines 50-51) to reject the claim prior to amendment discloses determining the time when a queue should be processed as a processing time after which the queue is to be processed. This is distinct from the claimed invention in which each data frame type corresponds to a particular processing time requirement for data frames of the data frame type, something which has nothing to do with scheduling when a queue is to be executed as disclosed by Beaulieu.

28. As to claims 16, 22 and 28, the Examiner asserts that Beaulieu teaches according to the weighted processing scheme, data frames of approximately equal total processing time restrictions are retrieved from each storage queue in a task retrieval cycle (col. 3, lines 11-25; col. 4, lines 30-52). Applicant respectfully disagrees. Beaulieu discloses a method for retrieving messages from a plurality of queues in which each queue is assigned a static weight which is the number of messages to be retrieved from the queue before retrieving messages from the queue with the next lower priority. Nothing is Beaulieu discloses that data frames of approximately equal total processing time restrictions are retrieved from each storage queue as claimed.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 15-16, 21-22, and 27-28 under 35 U.S.C. 103(a) as being unpatentable over Miro (U.S. Patent 5,220,653) in view of Applicant Admitted Prior Art (AAPA), as applied to claims 1, 11, 19 and 24 above, and further in view of Maeno (U.S. Patent 4,942,569) and Beaulieu et al. (U.S. Patent 6,182,120).

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 11/17/2005

By_____

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